

National Transportation Safety Board
Washington, DC 20594

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Brief of Accident

Adopted 07/07/2005

CHI04LA212 File No. 17898	08/05/2004	Chesterfield, MO	Aircraft Reg No. N7036J	Time (Local): 12:00 CDT		
Make/Model:	Robinson / R44			Fatal	Serious	Minor/None
Engine Make/Model:	Lycoming / O-540-F1B5		Crew	0	0	1
Aircraft Damage:	Substantial		Pass	0	0	3
Number of Engines:	1					
Operating Certificate(s):	On-demand Air Taxi					
Type of Flight Operation:	Sightseeing					
Reg. Flight Conducted Under:	Part 91: General Aviation					
Last Depart. Point: Same as Accident/Incident Location			Condition of Light: Day			
Destination: Local Flight			Weather Info Src: Weather Observation Facility			
Airport Proximity: On Airport/Airstrip			Basic Weather: Visual Conditions			
Airport Name: Spirit of St. Louis			Lowest Ceiling: None			
Runway Identification: NA			Visibility: 10.00 SM			
Runway Length/Width (Ft): Unk/Nr			Wind Dir/Speed: 360 / 011 Kts			
Runway Surface: Asphalt			Temperature (°C): 23			
Runway Surface Condition: Dry			Precip/Obscuration:			
Pilot-in-Command	Age: 58		Flight Time (Hours)			
Certificate(s)/Rating(s)			Total All Aircraft: 5798			
Flight Instructor; Commercial; Multi-engine Land; Single-engine Land; Helicopter			Last 90 Days: 118			
Instrument Ratings			Total Make/Model: 667			
Airplane			Total Instrument Time: 210			

The helicopter was substantially damaged when the main rotor contacted an open hangar door during takeoff and the helicopter subsequently impacted the ground. The pilot stated that the helicopter was parked on the ramp approximately 35 feet from the hangar. The bi-fold hangar door was open and extended about 10 feet out over the ramp. He stated that after takeoff, as the aircraft began to move away from the hangar, the passenger in the left front seat "accidentally and inadvertently hit or bumped the counterweight portion of the cyclic." The helicopter drifted toward the open hangar door and before he could correct the drift the main rotor clipped the bottom edge of the door. He recalled: "I quickly maneuvered away from the hangar building and began to level the aircraft." The helicopter descended to the ramp. The subsequent hard landing caused the skids to collapse and the main rotor to sever the tail boom. A ground witness to the accident submitted a video recording of the accident flight. Review of the recording revealed that after the helicopter lifted-off, it paused in a hover for a few seconds and then began to climb out, subsequently contacting the door. No drift toward the hangar building was observed prior to rotor blade contact with the door.

Brief of Accident (Continued)

CHI04LA212
File No. 17898 08/05/2004 Chesterfield, MO Aircraft Reg No. N7036J Time (Local): 12:00 CDT

Occurrence #1: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: TAKEOFF

Findings

1. (C) PREFLIGHT PLANNING/PREPARATION - INADEQUATE - PILOT IN COMMAND
 2. (C) UNSUITABLE TERRAIN OR TAKEOFF/LANDING/TAXI AREA - SELECTED - PILOT IN COMMAND
 3. (C) CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND
 4. (F) OBJECT - HANGAR/AIRPORT BUILDING
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Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Findings

5. MISC ROTORCRAFT,MAIN ROTOR/TAIL BOOM CONTACT
 6. TERRAIN CONDITION - GROUND
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Occurrence #3: GEAR COLLAPSED
Phase of Operation: DESCENT - UNCONTROLLED

Findings

7. LANDING GEAR,SKID ASSEMBLY - COLLAPSED

Findings Legend: (C) = Cause, (F) = Factor

The National Transportation Safety Board determines the probable cause(s) of this accident as follows.

The pilot's inadequate preflight planning due to his selection of an unsuitable takeoff area and his failure to maintain clearance from the open hangar door. A contributing factor was the open hangar door.